

the

# light report



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Volume 7; Number 3

## Superintendent's Summary: Weather and Prices

Inside this edition of The Light Report, you will find information about water conditions and power prices presented graphically. Water and prices are the two major variables when it comes to planning and operating a hydro-based utility. This year precipitation and snowpack in City Light's two major watersheds – feeding dams on the Skagit and Pend Oreille rivers – are about 70 percent of normal. For the month of February, precipitation at City Light's Diablo Dam on the Skagit is running at only about 40 percent of normal.

Less water means less power to generate. But the other side of the equation is price, and energy prices are rising in the Western United States, holding above \$50 per megawatt-hour and spiking into the \$90 range at times on the spot market.

The bottom line is that, thanks to a strong resource portfolio and the upturn in prices, we are on track for healthy revenue from surplus sales in spite of lower-than-expected water.

## The Periscope: Federal Energy Politics

City Light gets about one-third of its power from the Bonneville Power Administration. About 70 percent of it comes as a "slice" of the federal system, by which Seattle gets 4.7 percent of BPA's power production in return for paying that percentage of BPA's actual costs. The rest comes to us in preset monthly amounts, or "blocks", of power.

If BPA has cost overruns or revenue shortfalls in a given year, City Light pays a slice "true-up" early the next year to cover its share of the difference. On January 9, BPA provided the Slice true up costs that were incurred during the first contract year (Oct. 2001 – Sept 2002). \$50.8 million additional costs will be billed to all Slice participants in February, March and April 2003. City Light's share is \$10.7 million. We will work with the other Slice participants to complete an audit of these true-up costs within the 120 day timeframe stated in the contract. .

When BPA set rates under its new contracts back in 2000, it left open the possibility that it would have to adjust rates to deal with unexpected events. Since the timing and magnitude of these potential adjustments were unknown, the City Council provided that the effect of changes in BPA rates -- up or down -- should be passed through to City Light customers. During the energy crisis, this provision resulted in a rate increase of 0.55 cents per kilowatt-hour (9.4% on average) on October 1, 2001.

Six months later, City Light passed through a decrease of 0.07 cents per kilowatt-hour (1.1% on average). Over the last several months, BPA has announced a series of addi-

tional rate adjustments, including the slice true-up, the net effect of which will require an increase of 0.08 cents per kilowatt-hour (about 1.2%) in City Light's rates, effective April 1, 2003. In other words, the BPA adjustments since October 2001 are pretty much a wash for City Light.

BPA also recently announced that it expects to raise block power rates for City Light and other customers beginning Oct. 1, 2003. That increase "could be in the neighborhood of 15 percent," according to the BPA announcement. A rate-case process, water conditions and market prices could all affect the ultimate size of the increase. At this point, City Light estimates that a 15 percent increase on the block portion of BPA power would amount to about a 0.8 percent increase for City Light customers.

We will, of course, keep you informed about any changes in BPA rates.

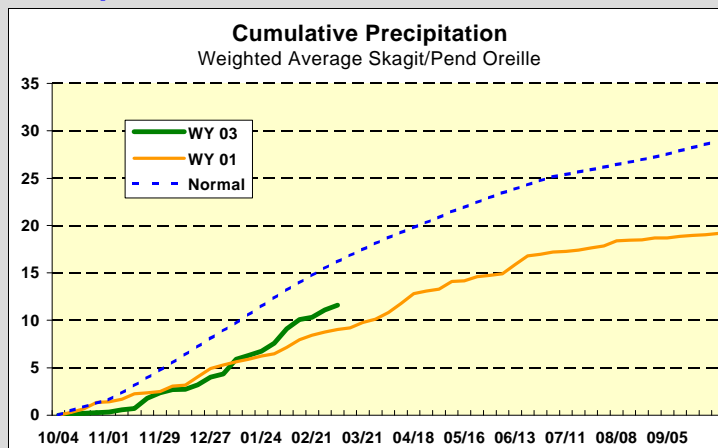
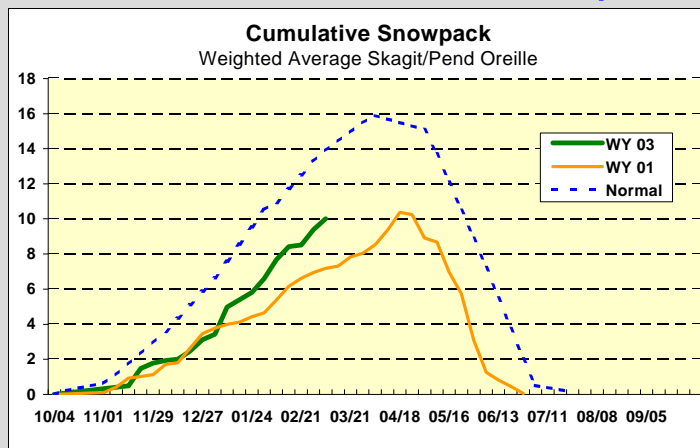
## Bits and Pieces: News and Notes from City Light and the Utility Industry

- **Suburban Franchises:** We are responding to questions from City Council staff regarding the proposed Tukwila franchise and rate-setting for suburban jurisdictions, in general. It appears that Council staff may propose increasing the rate differential on the power portion of the rate from 4 to 6 percent. They may also recommend that City Light undertake a rate review including streetlight costs in the rates of each suburban jurisdiction.

- **Engineering Article:** Senior Mechanical Engineers Bob

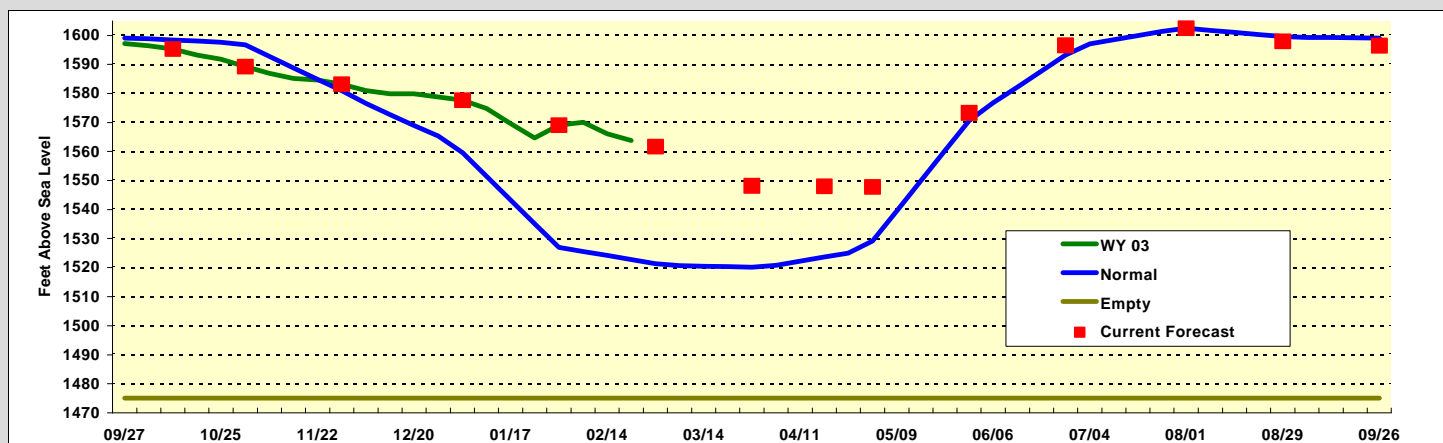
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## - Water Resources as of February 28, 2003 - Snowpack and Precipitation



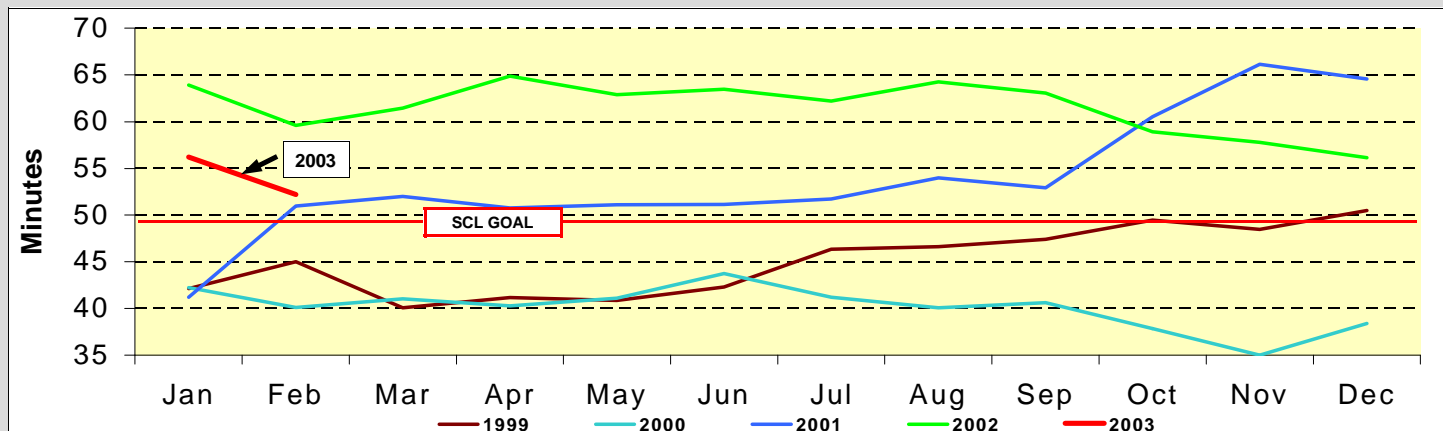
The 2003 water year (green line) is now expected to be among the driest on record (the 2001 record drought is indicated by the tan line). Recent rains have helped, but warmer than normal temperatures have melted some of the sparse snowpack.

## Ross Reservoir Levels



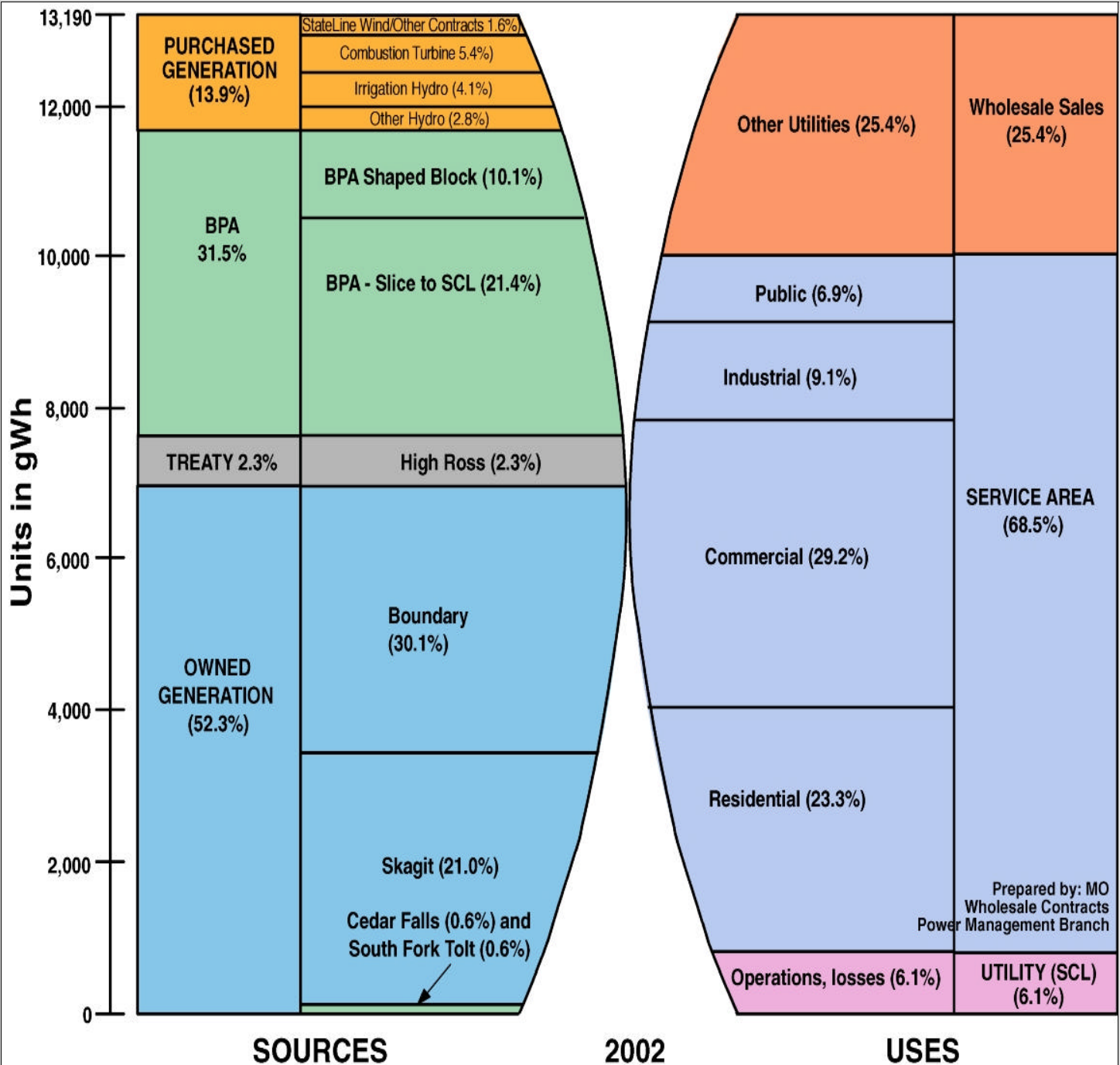
Higher-than-average January rains helped bring levels up last month. Due to the drought, we are operating our Skagit facilities at lower than maximum flows to keep Ross Reservoir levels high enough to meet license targets this summer.

## - System Reliability - Average Customer Outage Minutes, January 1999 – February 2003



The System Average Interruption Duration Index (SAIDI) continued its downward trend in February, closing in on the goal of 50. Two notable events include a backhoe hitting a pole guy wire, and a broken water main flooding a downtown network vault, causing a weekend outage.

## - Markets and Power Management - 2002 Sources and Uses of Power



In 2002, Seattle City Light's total sources of power were derived from 52.3 percent owned generation and 47.7 percent purchased generation. City Light's owned generation was produced at the Skagit, Boundary, Cedar Falls, Newhalem and South Fork Tolt hydroelectric projects. Purchased generation sources included primarily BPA, but also High Ross Treaty power from BC Hydro, and contracted power from Klamath Falls Combustion Turbine, Priest Rapids Project, Grand Coulee Hydroelectric Authority, State Line Wind Project, King County's cogenerator at Westpoint and the Columbia Storage Power Exchange. The total sources and uses were 13.2 million-megawatt hours for 2002. The uses included wholesale sales, service area, and utility losses. The resources used to serve customers in our service territory plus utility operations were 74.6 percent of the total. The remainder of 25.4 percent was sold on the wholesale market.

## SEATTLE CITY LIGHT

### Resource Contributions and Costs -- 2002

	<u>MWh</u>	<u>aMW</u>	<u>Cost</u>	<u>\$/MWh</u>
<u>Owned Resources (1)</u>				
Ross	837,204	95.57	\$7,270,934	\$8.68
Diablo	900,255	102.77	\$6,154,427	\$6.84
Gorge	1,025,291	117.04	\$7,227,148	\$7.05
Boundary (2)	3,971,940	453.42	\$17,237,278	\$4.34
Cedar Falls	79,419	9.07	\$2,411,188	\$30.36
South Fork Tolt (3)	78,205	8.93	\$1,432,108	\$18.31
Newhalem	10,003	1.14	\$323,502	\$32.34
Owned subtotal	6,902,317	787.94	\$42,056,586	\$6.09
<u>Firm Contracts (4)</u>				
BPA Slice (5)	3,704,334	422.87	\$96,858,702	\$26.15
BPA Block	1,334,162	152.30	\$35,679,588	\$26.74
Priest Rapids	326,522	37.27	\$2,326,465	\$7.12
Box Canyon	43,411	4.96	\$991,390	\$22.84
B.C. Hydro High Ross	297,123	33.92	\$22,011,997	\$74.08
CSPE	99,348	11.34	\$0	\$0.00
King Co. Cogen	14,538	1.66	\$816,004	\$56.13
GCPHA	248,266	28.34	\$7,759,601	\$31.26
Lucky Peak	288,848	32.97	\$12,416,529	\$42.99
Klamath Falls	709,520	81.00	\$39,680,007	\$55.93
Stateline Wind (6)	106,493	12.16	\$5,951,359	\$55.88
Firm Subtotal	7,172,565	818.79	\$224,491,642	\$31.30
Short-Term Market Purchases (4)	1,450,171	165.54	\$25,037,549	\$17.27
<b>TOTAL</b>	<b>15,525,053</b>	<b>1,772.27</b>	<b>\$291,585,777</b>	
<b>Power Sales Revenue</b>			<b>\$116,424,620</b>	
<b>Net Power Cost</b>			<b>\$175,161,157</b>	<b>\$11.28</b>

#### Notes:

- Owned resource costs are based on unaudited 2002 accounting records. These include allocation of estimated costs of \$10.3 million in depreciation and \$16.1 million in bond interest. Depreciation is allocated per Accounting's methodology based on plant cost and useful life. Interest is allocated on plant book value per the methodology developed by Finance in their Revenue Requirements Analysis (RRA) for the 2000-2002 period. Most hydro plant operating costs are fixed. Production depends on seasonal precipitation and unit cost will vary inversely with production.
- Includes MWh returned by BC Hydro for encroachment of 7 Mile Dam on our tailrace.
- Cost includes offset of BPA billing credit of \$3,066,655.
- Source: Actual Power Cost Report, 2002, except as otherwise noted.
- BPA has assessed SCL a cost true-up of \$10.3 million. We are disputing this and have not included that amount in this report.
- Net after returning PPM Energy's share of the power which we deliver at Mid-C under the Intergration and Exchange Agreement. Figures are for production in January through October. November and December production was not received until 2003.

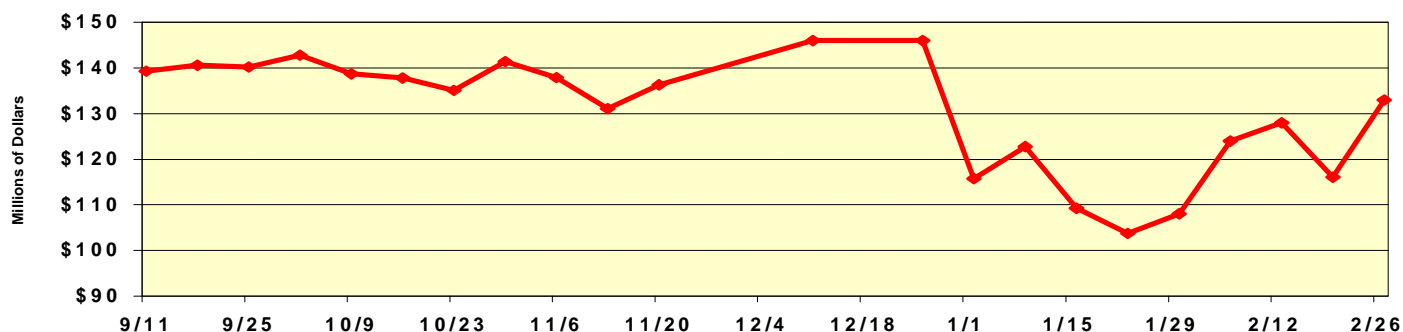
## - Markets and Power Management -

### Forward Power Prices, Current vs. Operating Plan

	High Load Hours			Low Load Hours		
	Operating Plan	Current	Change	Operating Plan	Current	Change
Jan 03	\$40	\$40	\$0	\$32	\$32	\$0
Feb 03	\$35	\$74	+\$39	\$30	\$70	+\$40
Mar 03	\$34	\$70	+\$36	\$28	\$62	+\$34
Apr 03	\$34	\$67	+\$33	\$24	\$58	+\$34
May 03	\$26	\$57	+\$31	\$16	\$41	+\$25
Jun 03	\$24	\$57	+\$33	\$16	\$43	+\$27
Jul 03	\$37	\$64	+\$27	\$25	\$46	+\$21
Aug 03	\$46	\$69	+\$23	\$31	\$49	+\$18
Sep 03	\$39	\$66	+\$27	\$27	\$48	+\$21
Oct 03	\$42	\$61	+\$19	\$31	\$46	+\$15
Nov 03	\$40	\$60	+\$20	\$30	\$46	+\$16
Dec 03	\$44	\$63	+\$19	\$35	\$50	+\$15

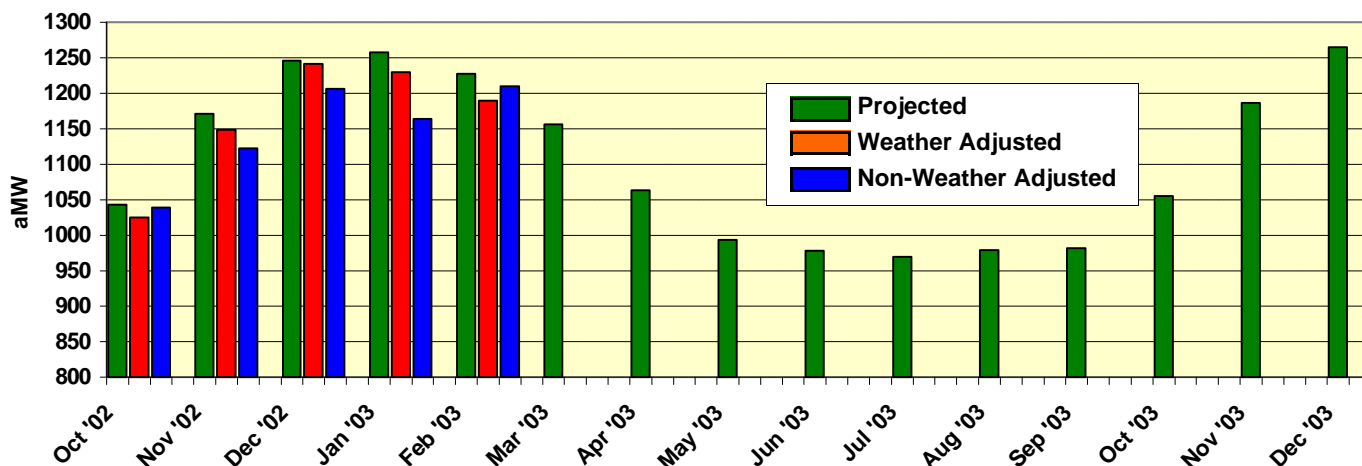
This table compares the forward prices for energy as of February 28<sup>th</sup>, 2003 with the forward prices assumed in the October 2002 operating plan. Higher than expected forward prices mean a more favorable market for our surplus.

### Market Value of 2003 Position



Unusually low reserves of natural gas storage in the US and Canada coupled with high heating demand on the east coast have resulted in rising natural gas prices, pushing up electricity prices (natural gas is often used to generate electricity). The rise in prices increased the projected market value of City Light's surplus energy in the last week.

### Load History and Projections



Retail sales are lagging behind the forecast which assumed the beginning of a very modest recovery from the recession. Loads are off 138,000 MWH since October. If this trend continues in the months to come, we can expect the annual load to be off by 400,000 MWH, and retail revenues down by \$26 million. Partially offsetting the loss of retail revenue will be the revenue earned selling this power on the wholesale market, which at current power prices would offset all but about \$5 million of this loss.

Fuchs and Mike Haynes coauthored an article, "Using Acoustic Flowmeters to Monitor and Improve Equipment Performance," which was published in the March 2003 issue of the Hydro Review magazine.

- **Consolidated Customer Service System (CCSS) Audit Report:** The State Auditor's Office completed its audit and issued the draft findings. They stated that they were impressed with the breadth and accuracy of the CCSS documented processes. Some weaknesses were identified, which are being addressed through process changes or future system upgrades.
- **ePayments:** The Customer Service Steering Committee approved DEA's proposal to develop an application that will allow customers to pay their bills electronically via PAN. Initially, the focus will be on an extension of the automatic bank payment that automatically debits customer checking accounts for the amount of their bill.
- **Rep. Joe Barton, R-Texas** has issued a call for sweeping legislation to restructure electricity markets, build strategic oil inventories and bolster nuclear and coal-fired power. Barton, who heads the House subcommittee on energy and air quality, released the 285-page draft as Congress resumes work on energy in the wake of last year's failure by House and Senate negotiators to reconcile deep differences on regulatory, environmental and security aspects of energy policy.
- **California officials** outlined evidence that shows energy traders and some municipalities manipulated the electricity market during California's energy crisis, leaving customers "plundered, defrauded and ripped off." The evidence is part of the state's bid to get about \$9 billion in energy refunds for 2000 and 2001, when power prices soared and the state faced energy shortages and rolling blackouts. The crisis cost the state billions of dollars and disrupted energy markets across the West.
- **State legislators** this year have a bill before them that would establish a renewable energy standard. Under the proposal, utilities would have to get at least 15 percent of their power from renewable sources, other than big-dam hydro, by 2023. It would also require by 2010 that statewide energy consumption decrease by a little less than 1 percent each

year.

- **GAO Land Rent Study:** We are preparing comments to the draft GAO Land Rent Study report to the National Hydro Association. Generally, the proposal recommends drastically changing the methodology for assessing rental fees associated with nono-federal hydro facilities and/or reservoirs located on federal lands. About 56 projects would be affected, including Seattle's Skagit and, to a lesser extent, Boundary projects. If approved, it is estimated that the proposed methodology could result in possibly as much as a 3,000 percent increase in our federal land rents paid to FERC, which have run about \$0.7-1.0 million annually for the past decade.
- **Plan HRIS Upgrade:** There is a potentially serious incompatibility between our current XP desktop environment and the new web-based version of HRIS, which is scheduled to be upgraded in June. We are working together with appropriate groups to determine viable options and solutions. Other departments are expected to have similar problems because the incompatibilities appear to be related to the City's browser and (standard) related plug-in versions.
- **Security:** Luck Peak Powerhouse continues to be at security level "A." Skagit and Boundary projects went to security level "B" (public access restricted). Except for business access, Boundary gates remain closed.
- **Neighborhood Pedestrian Lighting:** City Light has an annual neighborhood implementation budget of \$450,000 that supports pedestrian lighting projects. This is a relatively new program and we balance our engineering and crew work between these installations and replacement and repair of the broader street light system. We have installed 360 pedestrian lights in nine communities since 2000. Procurement of an additional 170 pedestrian lights for five communities is underway. Near term installations have been identified by DON for the Central Area, South Park, Capitol Hill, Belltown, and Lake City. Pioneer Square is also proposed. City Light will perform additional design studies to determine specific locations to help minimize conflicts and added costs associated with areaways.

## UPCOMING COUNCIL AGENDA ITEMS

### *Mar. 6: Energy and Environmental Policy Committee:*

- Final public hearing on reconfirmation of City Light Superintendent Gary Zarker
- City Light Financial Update (Gary Zarker, Jim Ritch)
- Tukwila franchise and rate ordinances
- Tukwila rate ordinance
- Discussion and Vote on Reconfirmation of City Light Superintendent Gary Zarker

### *Mar. 10: Full Council:*

- Final Vote on Reconfirmation of City Light Superintendent Gary Zarker

### *Mar. 20 Energy and Environmental Policy Committee*

- Greenhouse Gas Mitigation Contract (Nancy Glaser)
- Performance Metrics for SCL (Nancy Glaser)
- Appointment of SCL Advisory Board